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|-----------|--------------|
| WILSON, D | |
| ART UNIT | PAPER NUMBER |

1713

DATE MAILED:

06/16/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action SummaryApplication No.
09/097,035Applicant(s)
Krom et al.Examiner
D.R. WilsonGroup Art Unit
1713☒ Responsive to communication(s) filed on Apr 6, 2000☒ This action is **FINAL**.☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims☒ Claim(s) 1-14, 21, and 22 is/are pending in the application.Of the above, claim(s) 5, 11, and 12 is/are withdrawn from consideration.☐ Claim(s) _____ is/are allowed.☒ Claim(s) 1-4, 6-10, 13, 14, 21, and 22 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.**Application Papers**☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been☐ received.☐ received in Application No. (Series Code/Serial Number) _____.☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☐ Notice of References Cited, PTO-892☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 7☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1. Response to Amendment

Applicant's amendment filed 4/6/00, has been fully considered with the following results.

a. 35 U.S.C. 112, First and Second Paragraph, Rejections

The amendment overcomes the rejections under 35 U.S.C. 112, first paragraph, and the rejections are withdrawn except in regards to the reaction product comprising a blend of polymers (Claim 21) and the rejection in this regard is maintained as is discussed below.

The amendment overcomes the rejection under 35 U.S.C. 112, second paragraph, regarding α -olefins and "elastomeric materials", and in this regard the rejection is withdrawn. However, the remaining rejections under 35 U.S.C. 112, second paragraph, are maintained for reasons discussed below. For the record, in regards to elastomeric materials the issue is not whether the term "elastomeric materials" or "elastomers" are terms known in the art. The Examiner readily concedes that they are and even provided a dictionary definition of "elastomeric materials". The issue was whether the art recognized definition of these terms is consistent with the terminology used by applicant.

b. Rejections Over the Prior Art

Arguments traversing the prior art rejections are not deemed to be persuasive and the rejections are maintained as is discussed below.

2. Previously Cited Statutes

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Objection to New Matter

The amendment filed 4/6/00 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

(a) There appears to be no basis for second polymers being homopolymers of "conjugated units" which is broader than what is disclosed.. This objection could be overcome by amending Claim 1 to read "conjugated diene units".

(b) There appears to be no basis for the second polymer being a vulcanized polymer. As new Claim 22 limits the second polymer in the compositions being claimed to a non-vulcanized second polymer it implies that claims not so limited include vulcanized second polymers. There is also no basis to believe that second polymers which have been vulcanized would be expected to then be capable of blending with the first polymer in a manner wherein sufficient reaction with the first polymer occurs to achieve the advantages of the invention. In the traversal of the rejection over Coran, applicant seems to also acknowledge that the second polymer of the instant invention can not be vulcanized.

Applicant is required to cancel the new matter in the reply to this Office action.

4. Rejection Under 35 USC § 112, First Paragraph

a. Claims 1-4, 6 and 13-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter in question is that discussed in the preceding section.

b. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compositions comprised of the reaction product from the first and second polymers, does not reasonably provide enablement for a reaction product comprising the first and second polymer. The basis of this rejection was stated in Detailed Action § 3(a) of the previous Office Action. Applicant overcame this rejection for Claims 1-4, 6-10 and 13-14 by amendment. Claim 21 was not amended as alleged. A similar amendment to Claim 21 will overcome the rejection, i.e., a composition comprising the reaction product of a maleated polypropylene and an amine terminated polybutadiene.

5. Rejection Under 35 USC § 112, Second Paragraph

Claims 1-4, 6-10, 13-14 and 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The language of Claims 1 and 22 are indefinite because the metes and bounds of "comprised substantially" cannot be determined. It is recommended that

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applicant adhere to the transitional phrases set forth in M.P.E.P. § 2111.03.

"Substantially", appears to have a meaning contrary to the accepted meaning of comprises, and further is a relative term.

b. Claim 2 is indefinite because said "carboxylic acid" or "carboxylic anhydride" is defined as a group not a compound. Thus, said group is better defined as a radical of the stated compounds, or alternatively as being derived from maleic acid or maleic anhydride (as for instance is done in Claim 10). The basis of this rejection was stated in Detailed Action § 4(a) of the previous Office Action. Applicant argues that the word "group" in Claim 2 was removed by a prior amendment which preemptively remedies the Examiner's concern. This is not deemed to be persuasive because it does not address the merits of the rejection. Said "carboxylic acid" or "carboxylic anhydride" is defined as a functional group, not a compound, in Claim 1. Succinic acid or succinic anhydrides are compounds, not groups.

c. Claim 7 and 9 are indefinite because it is not known what a polymer comprising polybutadiene signifies. If the polymer comprises something else then it is a polymer composition and should be referenced as such. If applicant means that the polymer comprises butadiene units, then that is the language which should be used (as in Claim 8). The basis of this rejection was stated in Detailed Action § 4(c) of the previous Office Action. Applicant alleges that the amendment which now recites polybutadiene units overcomes the rejection. This is not deemed to be persuasive because the amendment does not address the merits of the rejection and is not what the Examiner suggested, i.e., "butadiene units", not "polybutadiene units".

d. Claim 10 is indefinite because "said C₄-C₈ conjugated diene units" lacks antecedent basis in Claim 1.

6. Rejection Under 35 USC § 102 (b)

Claims 1-4, 6-10, 13-14 and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Coran. The basis of this rejection was stated in Detailed Action § 5 of the previous Office Action.

Applicant traverses the rejection first because "Coran is not directed to the elected species" of the invention. This is not deemed to be persuasive because it does not refute that non-elected species of the instant claims are anticipated by Coran.

Applicant also traverses the rejection arguing that the claims as amended exclude the presence of a vulcanized nitrile rubber. This is not deemed to be persuasive because there is nothing in the claims which exclude the presence of a vulcanized nitrile rubber. Applicant's comprising language clearly permits the presence of such. It remains that Coran teaches a composition comprising a block copolymer comprising segments derived from an amine terminated rubber and maleic acid modified polypropylene (see Claim 8). It is also to be noted that the rubbers used in making the block copolymers are liquid (i.e., not vulcanized) (col. 2, lines 60-68).

7. Rejection Under 35 U.S.C. §103(a)

Claims 1-4, 6-10, 13-14 and 2-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berta in view of Stayer, Jr. and Admissions by Applicant. The basis of this rejection was stated in Detailed Action § 6 of the previous Office Action.

Applicant traverses the rejection arguing that "--- Berta does not provide any clear suggestion of a maleated polypropylene-amine terminated polybutadiene product." This is not deemed to be persuasive because this is an admitted deficiency of Berta, and is why it is not an anticipatory reference as opposed to an obviousness rejection.

Applicant's argument that the oxidized wax is a critical component of the compositions of Berta is not persuasive because the instant claims do not preclude the presence of an oxidized wax. The argument that the oxidized wax and not the functionalized polymer interacts with the anhydride-grafted polymer is interesting but is not supported by scientific reasoning or evidence. It is also contrary to the clear teachings of Berta in this regard and the known reactivity of anhydride groups with amino and hydroxy groups.

The argument that the Examiner's starting point of "Berta discloses graft copolymers of polypropylene with polybutadiene grafts ... exemplified by a hydroxy-terminated polybutadiene" is not by any means a clear teaching in Berta and is based upon hindsight of the instant invention cannot be sustained. Berta clearly teaches such at col. 5, lines 16-25.

8. Action Is Final

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

This application contains Claims 5 and 11-12 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

9. Art of Interest/Technological Background

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Inoue generically discloses the instant invention although examples of the polymer containing amino group are not those claimed by applicant. Inoue could be used as a basis for future prior art rejections.

10. Future Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D.R. Wilson whose telephone number is (703) 308-2398. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, may be reached at (703) 308-2450.

The fax phone number is (703) 305-5408 or 5433. The after final fax number is (703) 305-3599.



D.R. WILSON
PRIMARY PATENT EXAMINER
SECTOR 1700 - ART UNIT 1713